NOKIA
CONSUMER ELECTRONICS

Service-Manual

R

1992

NOKIA HiFi 8902 CD

IDENT-NO.: 5569 25 00

LUXOR

IDENT-NO.: 5560 00 80

⚠ **Sicherheitsbauteil!**
Dieses Symbol kennzeichnet in den Schaltbildern alle Bauteile, die nur durch Originalteile ersetzt werden dürfen.

Bei Reparaturen gültige Sicherheitsvorschriften beachten!

⚠ **Safety Component!**
This symbol identifies in the circuit diagrams all safety critical parts. Replace only with specified part numbers.

Service and repair work to be performed only in accordance with existing safety regulations!

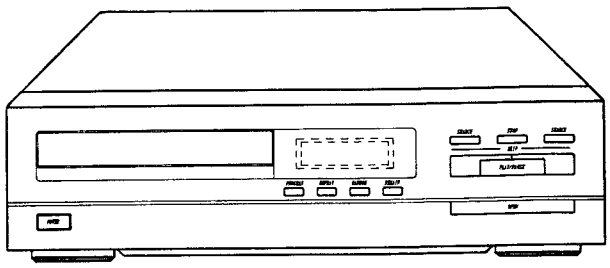
⚠ **Composant de protection!**
Ce symbol indique tous les composants dans les schémas,
qui doivent être remplacés uniquement par des pièces d'origines.

Pendant le dépannage respecter les régulations du sécurité!

Änderungen vorbehalten Modifications reserved Modifications réservées **6611 75 91** (9253) WE

NOKIA LUXOR

MODEL NO. HI FI 8902 CD
COMPACT DISC PLAYER



SPECIFICATIONS

PLAYBACK SYSTEM	COMPACT DISC DIGITAL AUDIO
TYPICAL AUDIO PERFORMANCE	
OUTPUT LEVEL (2V=0dB)	0dB
CHANNEL BALANCE	0dB
FREQUENCY RESPONSE (1kHz=0dB)	0dB (20 - 20kHz)
T.H.D	0.004dB
S/N RATIO	10dB
CHANNEL SEPARATION	90dB
OPTICAL READOUT SYSTEM	
LASER TYPE	SEMICONDUCTOR AL CA AS
NUMERICAL APERTURE	0.456
WAVE LENGHT	780 nm
POWER SUPPLY	
POWER SOURCE	AC 230V, 50Hz
POWER CONSUMPTION	8.5 WATT WITH 4 DIGIT LCD DISPLAY
DIMENSION	W=36cm(14-3/16") x H=9.2cm(3-5/8") x D=30cm(11-13/16")
WEIGHT	4 kgs (8.8 lbs)

SERVICE PUBLICATION

Note: All the specifications and features are subject to change without notice

ELECTROSTATICALLY SENSITIVE (ES) DEVICES:

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.

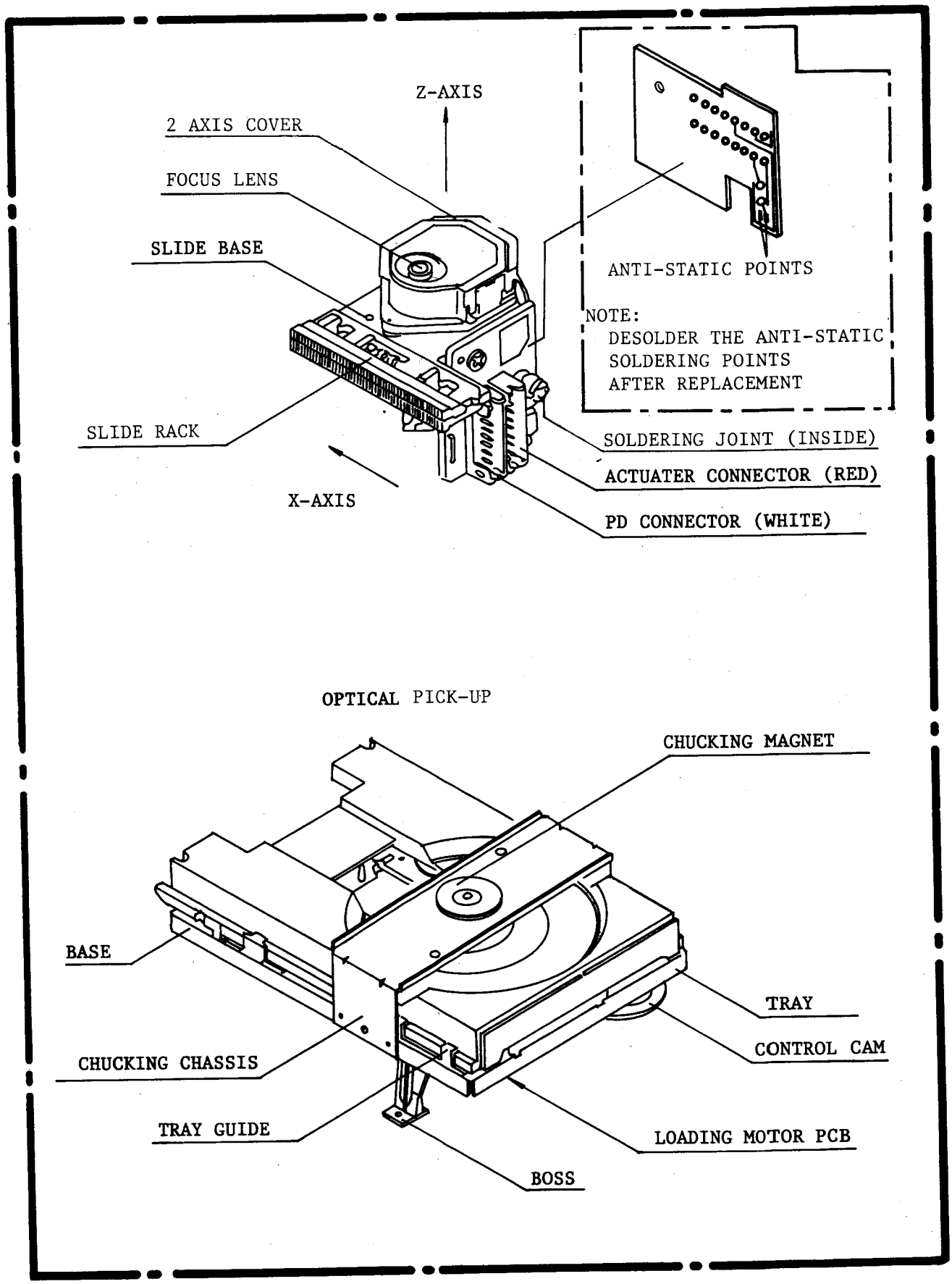
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package unless it's going to be installed immediately. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).

7. Before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed. CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

CD Player **Exploded View**



NOTE:
USE THIS DIAGRAM FOR REFERENCE ONLY. PARTS NOT AVAILABLE SEPARATELY.

Electrical Adjustment

RF PLL VCO Adjustment

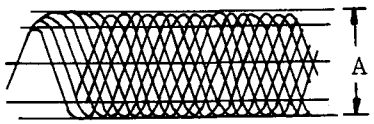
Test Points: TP1, TP2, TP3

1. Short TP2 and TP3, in stop mode.
2. Frequency counter connect to TP1 & TP3, adjust SFR003, let counter reading as 4.2338MHz ± 10KHz.
3. Open TP2 and TP3 after above procedures.

Focus Bias Adjustment

Test Points: 2P base (F)

1. In play mode.
2. Scope connect to 2P EH top base (F).
3. Adjust SFR002 let RF waveform output to maximum.
4. See Fig. 3.



1.4Vp-p ≤ A ≤ 2Vp-p

Figure 3

EF Balance Adjustment

Test Points: TP3, TP4, TP5

1. In play mode, scope connect to TP4 and TP5 (GND), TP3 and TP5 short.
2. Adjust SFR001 symmetrize to DC 0V.
3. See Fig. 4.

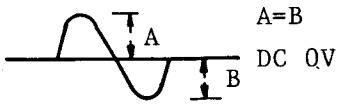


Figure 4

Adjustment Locations

CD DECODER PACB

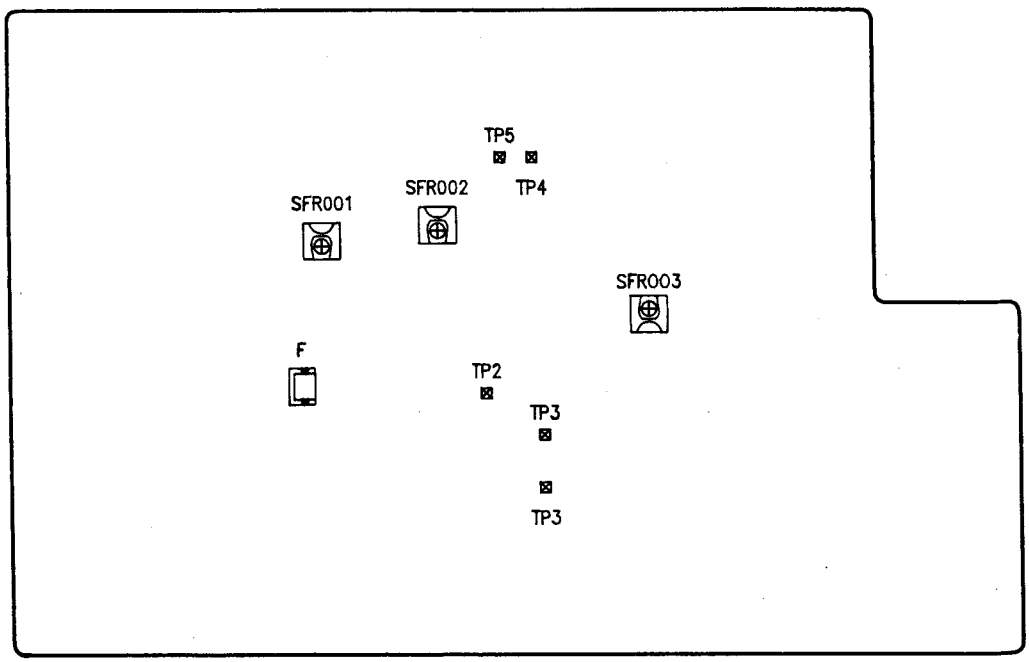


Figure 5

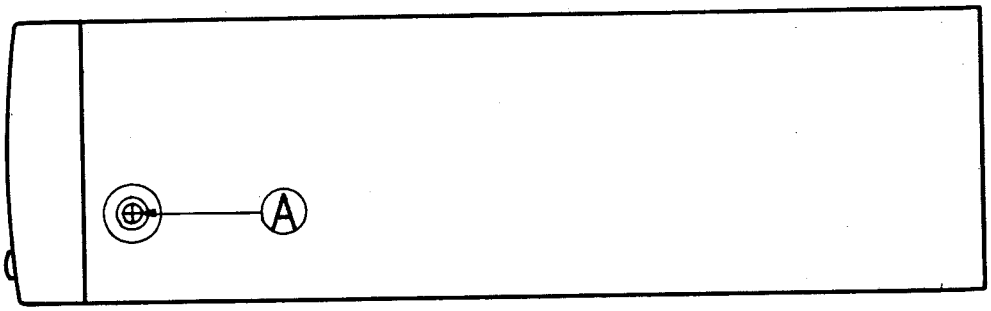


Figure 1

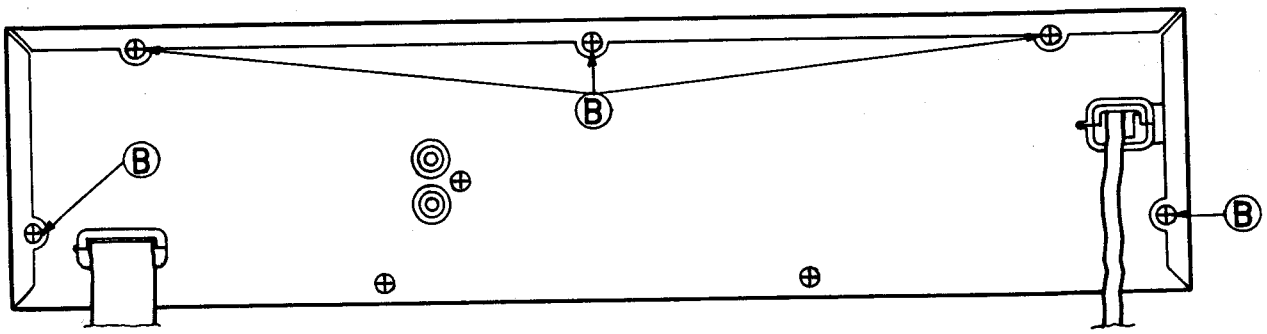


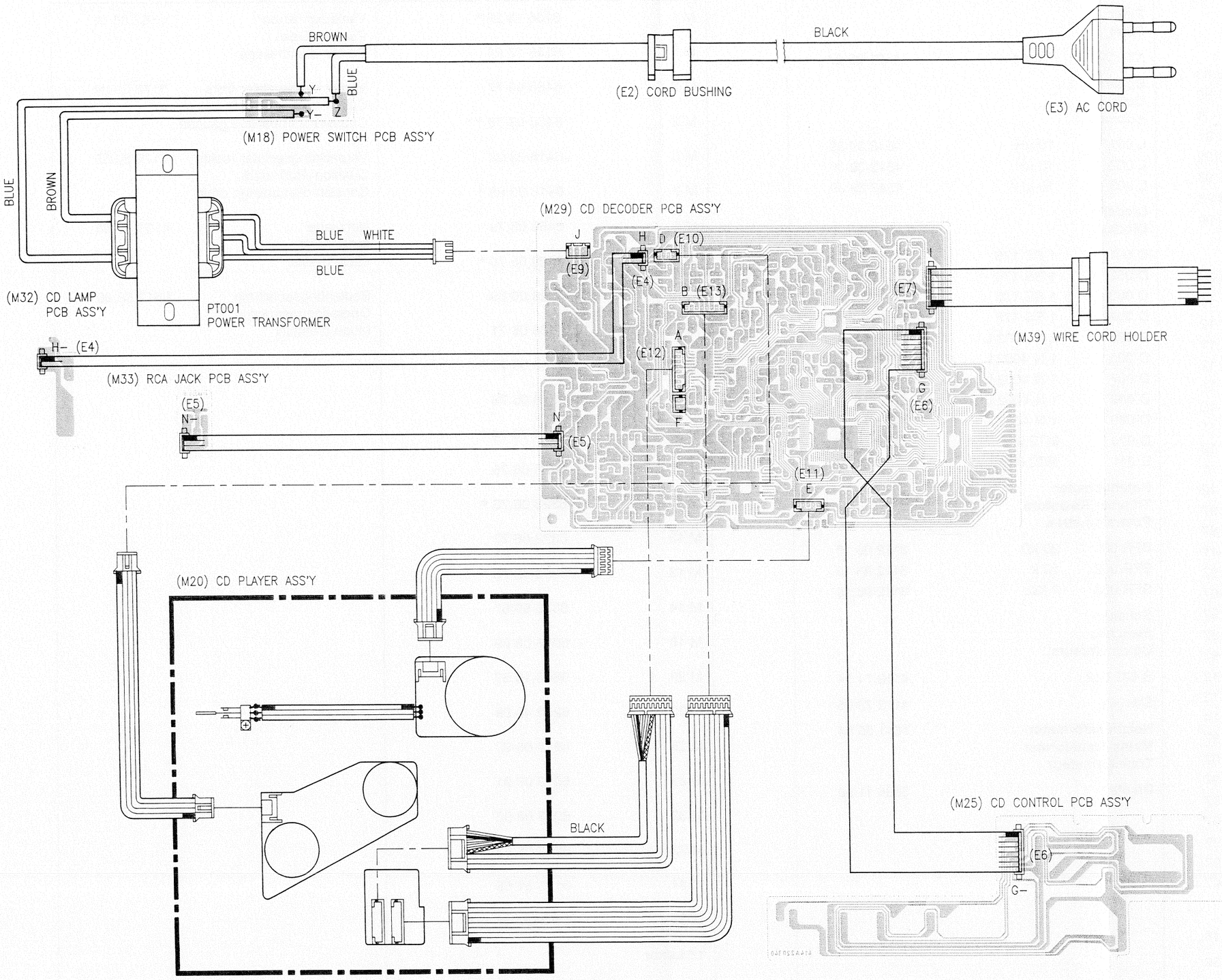
Figure 2

To Remove Top Cover

1. Remove 2 screws (A) from the right and left sides of the top cover. (See Fig. 1)
2. Remove 5 screws (B) from the top cover. (See Fig. 2)
3. Top cover can now be removed.

Für Ihre Notizen:
For your notes:
Pour vos notices:

Wiring Diagram-Component Side



Pos.-Nr. Ref.No. No.de pos.	Gegenstand Description Description	Bestell-Nr. Part No. No.de comm.
Integrierte Schaltungen **Integrated Circuits** **Circuits Intégrés**		
IC 001	IC CXA 1081 M	3771 66 88
IC 002	IC CXA 1082 BQ	3771 66 89
IC 003	IC CXD 1167 Q	3771 66 90
IC 004	IC MN 6474 M	3771 66 91
IC 005	IC CXP 1010 AQ	3771 66 92
IC 006	IC NJM 4558 L	3771 66 93
IC 007	IC NJM 4558 L	3771 66 93
IC 008	IC PST-520 D	3771 66 94
Transistoren **Transistors**		
Q 001	2 SC 945 P	6158 18 97
Q 002	2 SA 952 L	3614 77 11
Q 003	2 SC 2001 L	3614 77 12
Q 004	2 SA 952 L	3614 77 11
Q 005	2 SC 2001 L	3614 77 12
Q 006	2 SA 952 L	3614 77 11
Q 007	2 SC 2001 L	3614 77 12
Q 008	2 SA 952 L	3614 77 11
Q 009	2 SC 2001 L	3614 77 12
Q 010	2 SA 952 L	3614 77 11
Q 011	2 SC 2001 L	3614 77 12
Q 012	2 SC 945 P	6158 18 97
Q 013	2 SC 945 P	6158 18 97
Q 014	2 SA 952 L	3614 77 11
Q 016	2 SC 945 P	6158 18 97
Q 017	2 SC 945 P	6158 18 97
Q 018	2 SC 945 P	6158 18 97
Q 019	2 SC 945 P	6158 18 97
Q 020	2 SC 945 P	6158 18 97
Q 021	2 SC 2001 L	3614 77 12
Q 022	2 SC 2001 L	3614 77 12
Q 023	2 SA 934 R	3614 77 14
Q 024	2 SC 945 P	6158 18 97
Q 025	2 SC 945 P	6158 18 97
Q 026	2 SC 945 P	6158 18 97
Q 027	2 SC 945 P	6158 18 97
Q 028	2 SC 945 P	6158 18 97
Q 029	2 SC 945 P	6158 18 97
Q 030	2 SC 945 P	6158 18 97
Q 032	2 SC 945 P	6158 18 97
LP 001		4375 21 18
J 001		4131 42 69

Pos.-Nr. Ref.No. No.de pos.	Gegenstand Description Description	Bestell-Nr. Part No. No.de comm.
Filter **Filtre**		
XTL 001	Quarz	4421 22 27
Spulen **Coils** **Bobines**		
L 001	10 µH	4543 39 39
L 002	10 µH	4543 39 39
L 003	10 µH	4543 39 39
Dioden **Diodes**		
D 001	1 SS 176	3656 30 34
D 002	1 SS 176	3656 30 34
D 003	1 SS 176	3656 30 34
D 004	1 SS 176	3656 30 34
D 005	1 N 4002 L	3656 36 17
D 006	1 N 4002 L	3656 36 17
D 007	1 N 4002 L	3656 36 17
D 008	1 N 4002 L	3656 36 17
D 009	1 N 4002 L	3656 36 17
D 010	MTZ.6 B T-77	3656 36 27
D 011	MTZ.6 B T-77	3656 36 27
Potentiometer **Trimmer Resistors** **Potentiometres**		
SFR 001	20 kΩ	3112 96 18
SFR 002	10 k	3112 96 13
SFR 003	2 KΩ	3112 96 19
Schalter **Switches** **Commutateurs**		
S 002-012		4112 74 94
SW 001		4112 75 05
Netztransformator **Mains Transformer** **Transformateur**		4511 35 04
Display		3686 11 59

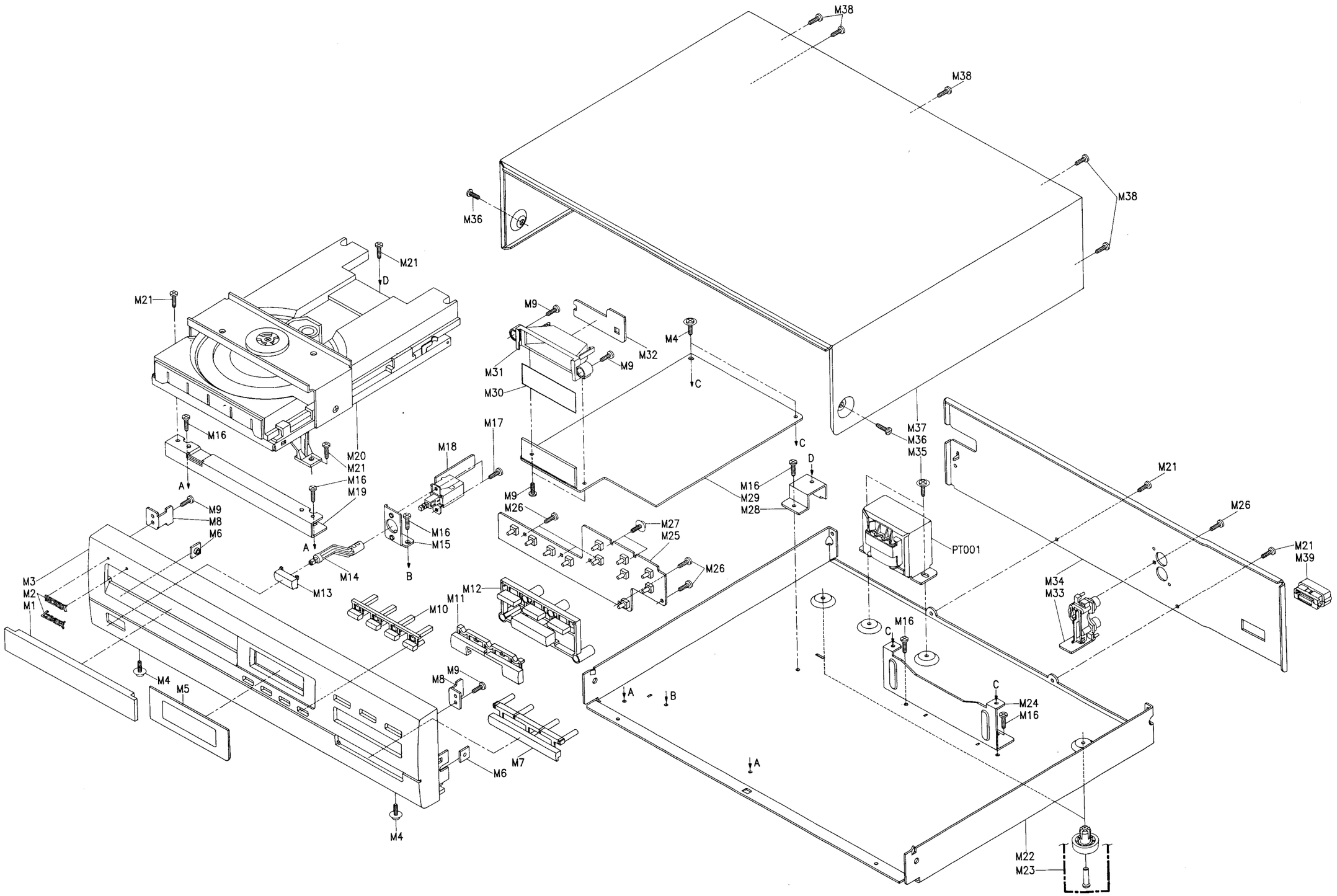
Pos.-Nr. Ref.Nr. No.de pos.	Bestell-Nr. Part No. No.de comm.
M 1	6136 13 25 *
M 1	6136 13 24
M 2	6466 03 77
M 2	6466 03 78 **
M 3	6418 33 98
M 3	6418 33 99 *
M 5	6466 03 79
M 7	6328 06 70 *
M 7	6328 06 69
M 10	6328 06 71
M 10	6328 06 72 *
M 11	6328 06 73
M 11	6328 06 74 *
M 12	6328 06 75
M 12	6328 06 76 *
M 13	6328 06 77
M 13	6328 06 78 *
M 14	8318 59 67
M 18	6913 08 89
M 20	5863 10 57
M 23	6273 40 59
M 25	6913 08 90
M 29	6913 08 91
M 32	6913 08 92
M 33	6913 08 93
M 34	6135 51 65
M 37	6131 90 46

** **Luxor**

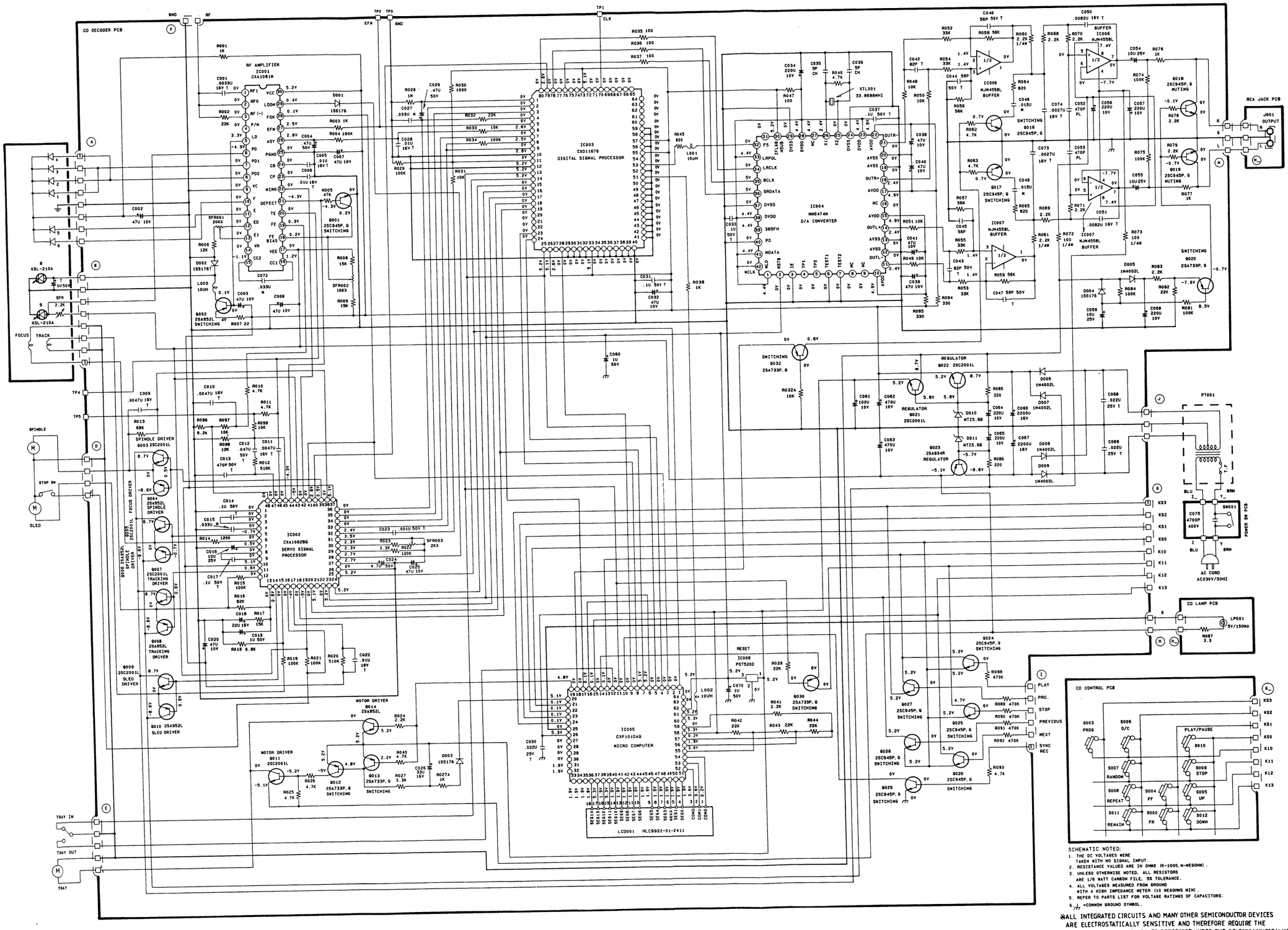
* **Anthrazit / Anthracite**

Pos.-Nr. Ref.Nr. No.de pos.	Bestell-Nr. Part No. No.de comm.
Vackungskarton Packing Case Carton d'emballage	6162 88 52
Verpackungspolster links Cushion Ass'y left Coussin d'emballage gauche	6172 30 84
Verpackungspolster rechts Cushion Ass'y right Coussin d'emballage droit	6172 30 85
Netzkabel main cable câble réseau	4131 42 68
Bedienungsanleitung Operating Instruction Mode d'emploi	6612 58 90

Mechanical Exploded View



Schematic Diagram



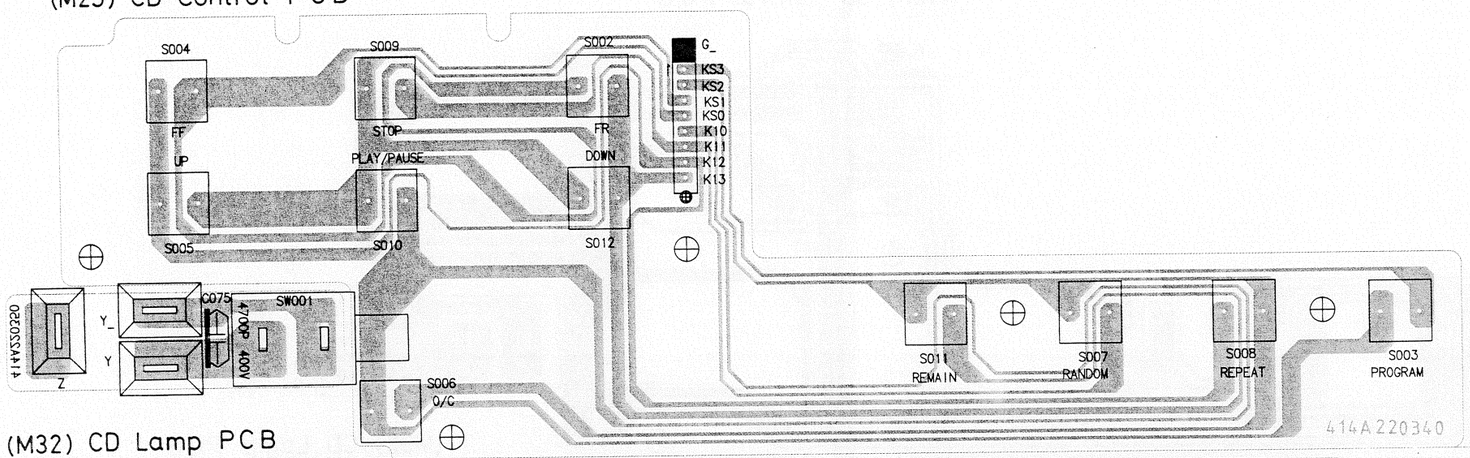
SCHEMATIC NOTED:

1. THE DC VOLTAGES WERE TAKEN WITH NO SIGNAL INPUT.
2. RESISTANCE VALUES ARE IN OHMS (K=1000, M=MEGOHM).
3. UNLESS OTHERWISE NOTED, ALL RESISTORS ARE 1/6 WATT CARBON FILE, 5% TOLERANCE.
4. ALL VOLTAGES MEASURED FROM GROUND WITH A HIGH IMPEDANCE METER (10 MEGOHMS MIN).
5. REFER TO PARTS LIST FOR VOLTAGE RATINGS OF CAPACITORS.
6. ⏚ =COMMON GROUND SYMBOL.

※ALL INTEGRATED CIRCUITS AND MANY OTHER SEMICONDUCTOR DEVICES ARE ELECTROSTATICALLY SENSITIVE AND THEREFORE REQUIRE THE SPECIAL HANDLING TECHNIQUES DESCRIBED UNDER THE "ELECTROSTATICALLY SENSITIVE(ES) DEVICES" SECTION OF THIS SERVICE MANUAL.※

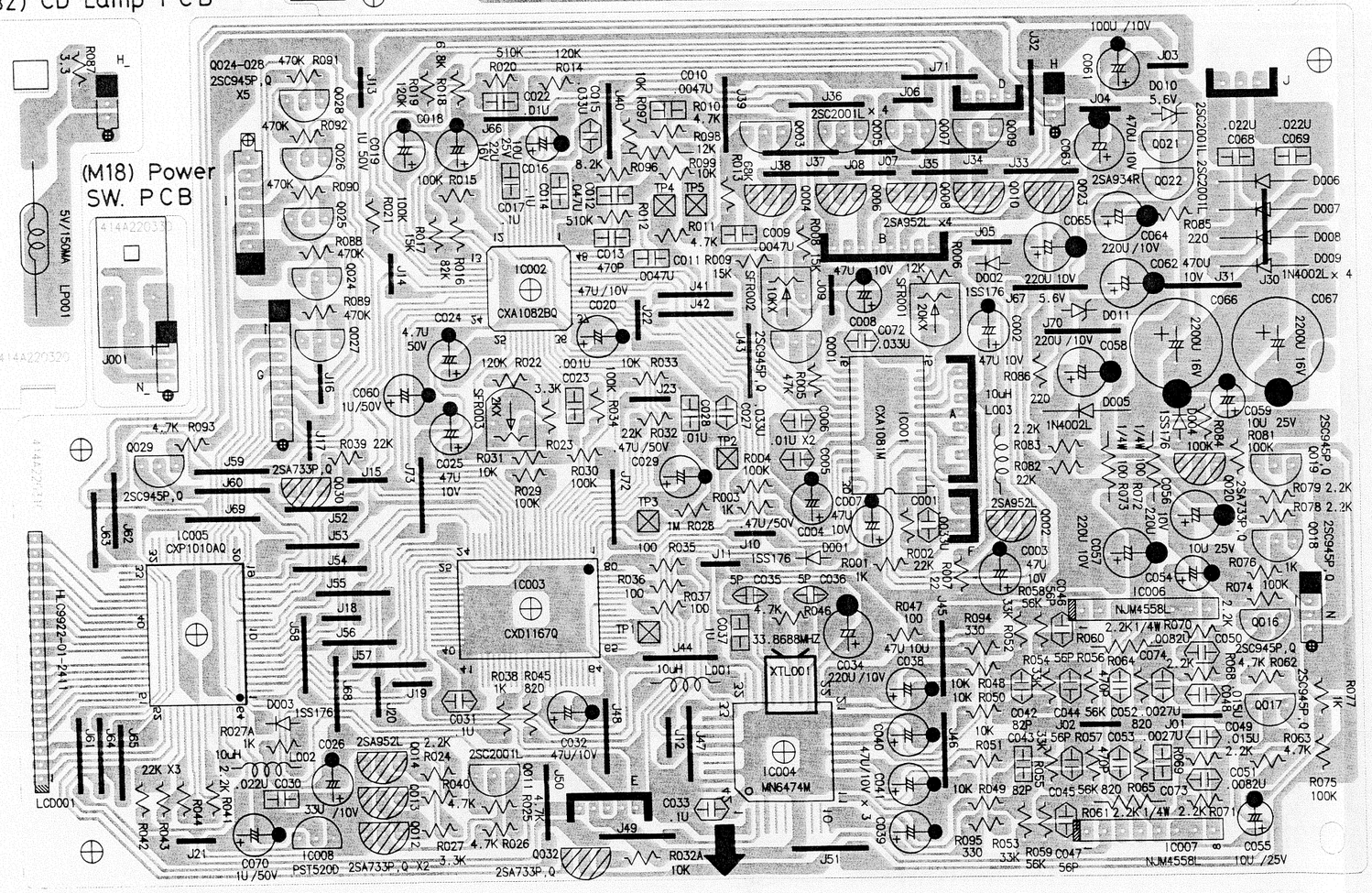
P C Board-Solder Side

(M25) CD Control P C B



(M32) CD Lamp P C B

(M18) Power S.W. P C B



(M29) CD Decoder P C B

P C Board-Component Side

(M25) CD Control P C B

(M32) CD Lamp P C B

(M18) Power SW. P C B

(M29) CD Decoder P C B